

I claim:

1.

A blade attachment for an off-road vehicle having a forward end, a rearward end, a right side, a left side, and an underside, comprising in combination:

a mounting frame having rearward and forward ends;

said rearward end of said mounting frame being pivotally connected, about a horizontal axis, to said vehicle and extending forwardly therefrom so that its said forward end is positioned forwardly of said forward end of said vehicle;

said forward end of said mounting frame being selectively movable between raised and lowered positions;

a blade having a right end and a left end, selectively pivotally secured about a vertical axis to said forward end of said mounting frame;

an electrically driven motor operatively mounted on said mounting frame;

said electrically driven motor being operatively connected to said blade so as to selectively pivotally move said blade between selected angular positions with respect to said mounting frame and the vehicle.

2.

The combination of claim 1 wherein said motor is powered by the vehicle electrical system.

3.

The combination of claim 1 wherein a locking mechanism selectively locks said blade in said selected angular positions.

4.

1 The combination of claim 3 wherein said locking mechanism is in an unlocked position when said forward end of said mounting frame is in its said raised position.

5.

5 The combination of claim 4 wherein said locking mechanism is in a locked position when said forward end of said mounting frame has been lowered a predetermined distance from its said raised position.

6.

10 The combination of claim 1 wherein said motor is operatively connected to said blade by a clutch.

7.

 The combination of claim 6 wherein said clutch comprises a slip clutch.

8.

15 The combination of claim 1 wherein said motor is a fractional horsepower motor.

9.

20 The combination of claim 5 wherein said locking mechanism includes a locking pin, movable between locked and unlocked positions, and wherein a linkage is operatively secured to said locking pin for moving said locking pin to its unlocked position so that said motor may pivotally move said blade to one of its selected angular positions.

10.

1 The combination of claim 9 wherein said linkage is engageable with the vehicle when said forward end of said mounting frame is in its raised position to move said locking pin to its said unlocked position.

5 11.

The combination of claim 10 wherein a spring is operatively connected to said locking pin to urge said locking pin towards its said locked position.

12.

10 The combination of claim 1 wherein said motor is selectively adjustably connected to said blade.

13.

15 The combination of claim 10 wherein an actuator is operatively mounted on said linkage which is engageable with the vehicle when said mounting frame has been moved to its said raised position.

14.

The combination of claim 13 wherein said actuator is selectively adjustably mounted on said linkage.

15. 20

The combination of claim 1 wherein said vehicle is an all-terrain vehicle.

16.

25 A blade attachment for an off-road vehicle having a forward end, a rearward end, a right side, a left side, and an underside, comprising in combination:

a mounting frame having rearward and forward ends;

1 said rearward end of said mounting frame being pivotally connected, about a horizontal axis, to said vehicle and extending forwardly therefrom so that its said forward end is positioned forwardly of said forward end of said vehicle;

5 said forward end of said mounting frame being selectively movable between raised and lowered positions;

a first plate means secured to said forward end of said mounting frame;

a hinge plate selectively movably positioned on said first plate about a vertical axis and having a forward end and a rearward end;

10 said hinge plate having a blade position lever opening formed therein;

said hinge plate having a plurality of spaced-apart notches formed in its said rearward end;

a blade secured to said hinge plate;

15 a blade position lever operatively pivotally movably mounted on said hinge plate which extends downwardly therefrom through one of said notches and through said blade position lever opening;

said blade position lever being selectively movable between locked and unlocked positions;

20 said blade position lever normally being in its said locked position;

and an electrically driven motor operatively mounted on said mounting frame;

1 said motor being operatively connected to said hinge plate for moving said hinge plate
and said blade to various angular positions with respect to said mounting frame
and the vehicle when said blade position lever is not in its said locked position.

17.

5 The combination of claim 16 wherein the motor has a drive pulley associated
therewith; a cable wound upon said drive pulley and having first and second ends; said
first and second ends of said cable being operatively secured to said hinge plate.

18.

10 The combination of claim 17 wherein said cable is wound upon said drive pulley
in such a fashion to permit said cable to slip upon said drive pulley should said hinge
plate and blade be physically moved without said motor being actuated.

19.

15 The combination of claim 18 wherein said first and second ends are secured to a
driven plate which is positioned between said hinge plate and said first plate; said driven
plate being operatively attached to said hinge plate for movement therewith.

20.

20 The combination of claim 19 wherein said first and second ends of said cable are
resiliently connected together.

21.

25 The combination of claim 16 wherein said motor is powered by the vehicle
electrical system.

22.

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The combination of claim 16 wherein said blade position lever is in an unlocked position when said forward end of said mounting frame is in its raised position.

23.

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The combination of claim 22 wherein said locking mechanism is in a locked position when said forward end of said mounting frame has been lowered a predetermined distance from its said raised position.

24.

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The combination of claim 16 wherein said motor is a fractional horsepower motor.

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The combination of claim 22 wherein a linkage is operatively secured to said blade position lever for moving said blade position lever to its unlocked position so that said motor may pivotally move said hinge plate and said blade.

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The combination of claim 25 wherein said linkage is engageable with the vehicle when said forward end of said mounting frame is in its raised position to move said blade position lever to its said unlocked position.

27.

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The combination of claim 16 wherein a spring is operatively connected to said blade position lever to urge said blade position lever towards its said locked position.

28.

1 The combination of claim 16 wherein said motor is selectively adjustably
connected to said mounting frame.

29.

5 The combination of claim 16 wherein said motor is selectively adjustably
connected to said hinge plate.

30.

The combination of claim 16 wherein said vehicle is an all-terrain vehicle.

31.

10 The combination of claim 16 wherein said vehicle is a single passenger vehicle.

32.

15 The combination of claim 25 wherein an actuator is operatively secured to said
linkage which is engageable with the vehicle when said mounting frame has been
moved to its said raised position.

33.

20 The combination of claim 25 wherein said actuator is selectively adjustably
mounted on said linkage.